

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number  
**WO 03/082985 A1**

- (51) International Patent Classification<sup>7</sup>: **C08L 95/00**, 53/02, C08F 297/04
- (21) International Application Number: PCT/EP03/03173
- (22) International Filing Date: 24 March 2003 (24.03.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
02076278.7 28 March 2002 (28.03.2002) EP
- (71) Applicant (for all designated States except US): **KRATON POLYMERS RESEARCH B.V.** [NL/NL]; Badhuisweg 3, NL-1031 CM AMSTERDAM (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **TROMMELEN, Eric, A., T.** [NL/NL]; Badhuisweg 3, NL-1031 CM Amsterdam (NL). **VAN DIJK, Martin, C.** [NL/NL]; Badhuisweg 3, NL-1031 CM Amsterdam (NL).
- (74) Agents: **BEETZ, Tom** et al.; **DE VRIES & METMAN**, Overschiestraat 180, NL-1062 XK Amsterdam (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- with international search report
  - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **BITUMINOUS COMPOSITION**

(57) Abstract: A bituminous composition which comprises a bituminous component and a block copolymer which comprises at least two blocks of a conjugated diene and at least two blocks of a monovinylaromatic hydrocarbon, being of the general formula:  $S_1-B_1-S_2-B_2$  wherein  $B_1$  is a block of polymerized conjugated diene comprising at least 50 mole% isoprene having an apparent molecular weight of from 180,000 to 400,000,  $S_1$  and  $S_2$  are blocks of polymerized monovinylaromatic hydrocarbon having a weight average molecular weight of 12,000 to 40,000, and  $B_2$  is a block of polymerized conjugated diene comprising at least 50 mole% isoprene having an apparent molecular weight of from 15,000 to 60,000; wherein the weight ratio  $W$  of  $B_1$  over  $B_2$  is in the range of 3.0 to 12.0; and wherein the content of polymerized monovinylaromatic hydrocarbon is in the range from 10 to 35 wt.%.

WO 03/082985 A1